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ABSTRACT

This report evaluates the third-year activities of a project to provide for the continued development, implementation, assessment, and refinement of career education K-12 in the Des Moines Independent School District. Evaluation results are organized by the following components: Elementary, junior high school, senior high school, technical high school, handicapped career center, dropouts, career guidance services, placement and followup, public information and communication, and postsecondary career training. For each component, performance and process objectives are listed, followed by related tabled and narrative evaluation data. Tables display survey data on the elementary component indicating positive results for implementation. Tabled results of a survey of students, administrators, and parents regarding two junior high school programs indicated student interest and involvement as well as parent and administrator satisfaction. Summarized information regarding use of the information center is presented for teachers and students, and summarized results of a survey of vocational youth organizations also appear. Evaluation of the remaining project components is in the form of brief narrative summaries. (NJ)

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EVALUATION REPORT

DES MOINES COMPREHENSIVE CAREER EDUCATION CURRICULUM PROJECT

RECEIVED
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DES MOINES, IOWA

OCT 8 1976

Submitted to

Mr. Richard Gabriel
Project Director

DES MOINES INDEPENDENT COMMUNITY SCHOOL DISTRICT

Des Moines, Iowa

VT-103-552

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PREFACE

The present report is designed to document the results compiled through the implementation of evaluation activities during the 1975-76 school year operation of the Comprehensive Career Curriculum in the Des Moines Independent Community School District. Evaluation results will be reported for both performance and process objectives. In addition, summary evaluation information for the three years has been reported when appropriate.

This report is the product of the third year of the cooperative endeavor between the project personnel in the Des Moines Independent Community School District and Multi-Media Associates, Inc., to implement a comprehensive and systematic evaluation plan. The results represent a basis for decision-making regarding future career education activities within the Des Moines Schools.

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SECTION 1

HISTORICAL OVERVIEW

The Comprehensive Career Curriculum Project provides for the continued development, implementation, and evaluation of career education in the Des Moines Independent Community School District. This project includes services for all youth in the city of Des Moines. The program implemented in the schools provides career awareness activities in the pupils' early years, career exploration activities in the middle years, and in-depth exploration, as well as vocational education, as the student approaches graduation or makes plans to continue his education in a post-secondary institution. Other project components provide services that enhance the student's opportunity to make career decisions and secure employment.

Needs for the program were documented from studies dating from 1968 to 1971. In 1968 the Des Moines Independent Community School District initiated a study of the need for better vocational education programming with the formation of a staff study committee. The findings of that group, along with priority statements of national groups, indicated a need for more intensive study.

In July 1971, a city-wide general advisory committee on career education was formed. After ten months of intensive study that committee made its first report to the Board of Education in May 1972. In this report specific recommendations relative to the development and implementation of career education, grades K-12, were made.

In addition, a special committee to study career education at the elementary level (K-6) was formed. As a result of its recommendation, a pilot program for elementary career education has been developed and implemented.

A Community Development Agency, an outgrowth of Model Cities, included career education in the schools as the high priority need in the city. Its funds originally assisted the school district in accomplishing some career education goals.

In addition to the work of local study groups, the National Advisory Committee on Vocational Education, along with nationally prominent educators, has identified a need for career education and guidance services.

As a result of these investigations, the following district needs for career education and services are presented.

1. There is a need in Des Moines schools to relate the pupil's educational program to his/her personal goal of economic independence.
2. Vocational education programs are a culminating part of career education for some pupils, and those programs should enhance the pupils' job opportunities and further training.
3. Severely handicapped pupils in Des Moines need the opportunity to work and to feel that they are productive members of society.
4. There is a need in Des Moines to provide career training for youth who have dropped out of school.
5. There is a need in Des Moines schools to improve the quality of pupil guidance programs as those programs relate to careers and employment and to provide placement in jobs or in further training for all people leaving the institution.
6. Vocational education programs need to develop more positive attitudes toward employment.
7. Des Moines schools need to bring about changes in instruction through staff development activities.
8. The Des Moines school district needs to inform the total community about career education and enlist its support in the development and implementation of programs.
9. There is a need for articulation between programs in the elementary and secondary schools and those of the post-secondary institutions.

To meet these needs the Comprehensive Career Curriculum Project was developed.

The Comprehensive Career Curriculum Project provides for the continued development, implementation, assessment, and refinement of career education, grades K-12, in the Des Moines Independent Community School District. This project has been implemented in a somewhat different manner from many federally funded projects. Rather than hiring a staff for the immediate implementation of the project, the district chose to utilize district staff and to employ in addition only a career education resource specialist at the elementary level to assist in implementing the project. This decision required the project personnel to become facilitators. Their major responsibilities related to the development of procedures for the involvement of other district personnel (central office and local buildings) so that they would become aware of career education, comprehend the concept as originally developed by the Des Moines schools, and be the initiators of the project. This approach, while possibly slowing the implementation process, certainly has merit when viewed for long-range results. Many federal projects hire staff to implement the project, but, when the federal dollars are terminated, the staff has to be reassigned and very little is left of the project. The approach of the Comprehensive Career Curriculum Project provides for developed expertise within district funded positions and developed activities to become, initially, an integral part of the regular school program.

In developing such a project, special emphasis has been placed on staff development and on the development of career-related materials. Initial curriculum development workshops were scheduled during the first summer with continued input during the first year of implementation. The workshops continued during the second summer for modification and additions of content.

In writing the original project application, the philosophical approach of the project serving as a facilitator, with local implementation responsibilities, was incorporated through the stated performance and process objectives. The

personnel responsible for the implementation of activities ranged from building teachers and principals to many district central office personnel.

For the initial two-thirds of the first project year, the project director assumed all the "facilitating" responsibilities of the project. Beginning in March 1974 an elementary career education resource specialist was employed and assumed the major "facilitating" responsibilities of the elementary schools' career education activities. During the summer after the first project year, the original elementary career education resource specialist was promoted to an elementary principal and a new person was hired for the position.

This position was filled in January 1975, and the person worked with the elementary program, while the project director worked with the junior and senior high school personnel.

Because of the magnitude of the facilitating responsibilities and the original desire that a successful project should be implemented from locally funded positions, the following communication pattern (Figure 1) was established during the latter part of the 1973-74 school year and was implemented during the 1974-75 school year for the elementary schools.

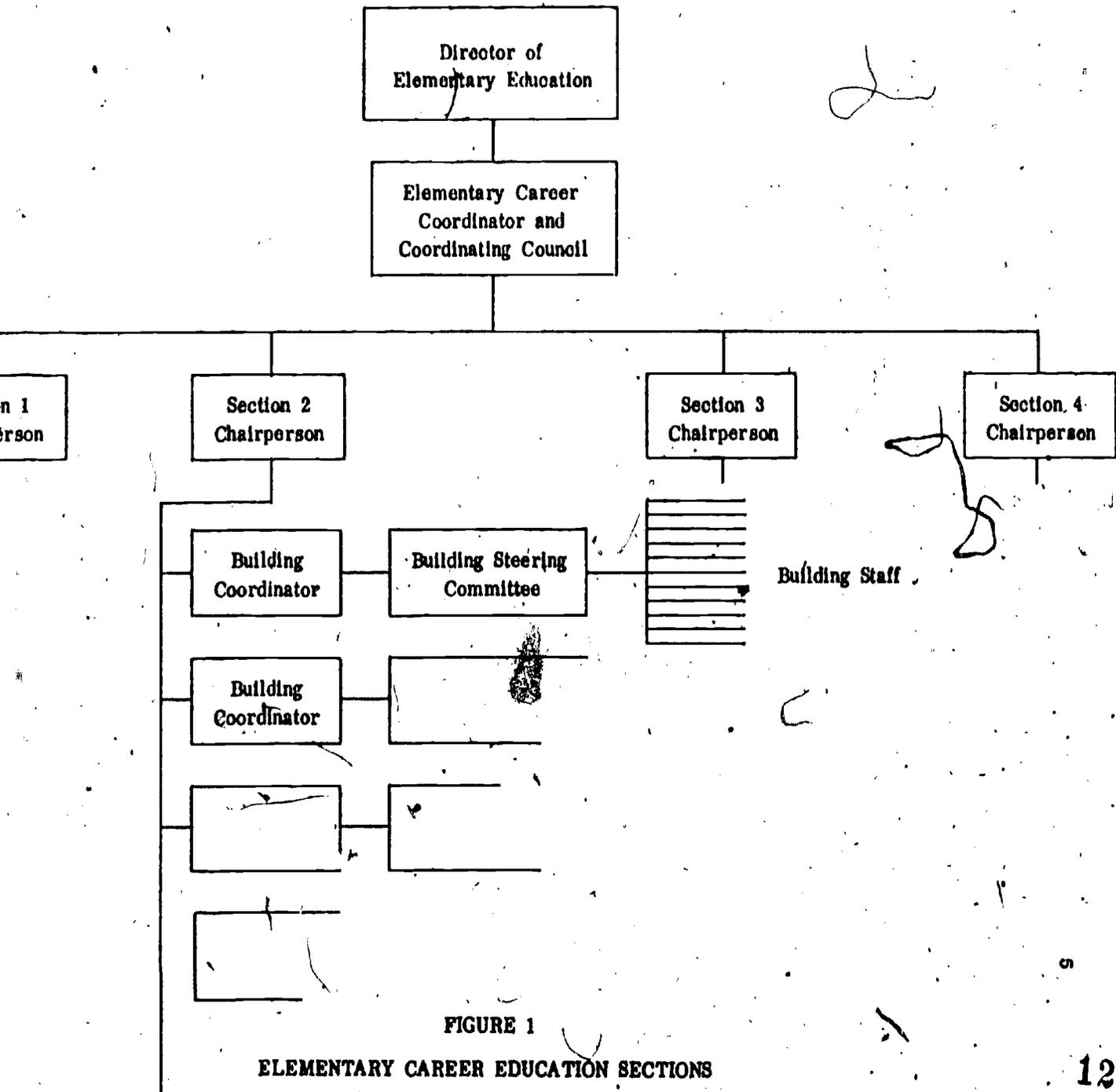


FIGURE 1

ELEMENTARY CAREER EDUCATION SECTIONS

The Des Moines Independent Community School District was divided into four sections. Within each section there are approximately eight to fifteen elementary schools. From each building staff a building coordinator for career education was chosen. The building coordinators comprise the section career education committee. From this committee, a chairperson was chosen who serves on the district level career education committee. Functionally, the career education committee within each school is responsible for designing career education activities at the building level. At the section level, building ideas are shared and disseminated to all buildings within that section. The district career education committee is then responsible for sharing intersection activities and disseminating this information within the section and back to the individual schools. This plan was implemented during the 1974-75 school year.

Also a similar plan was developed at the secondary level for facilitating and implementing career education at this level. Each junior high school identified a building coordinator for career education who met monthly along with various building level staff and the project director for sharing activities and disseminating information.

Owing to the magnitude of the implementation process from "within," not as many activities were implemented on the schedule that has been originally planned in the proposal. The implemented activities will be outlined under the documentation of the appropriate performance and process objectives within the specified project components.

In addition to the listed performance and process objectives within the twelve project components, much time was also devoted to related areas but areas not specified in the evaluation plan. These areas included:

1. Business Education Alliance
2. "Career Expo"
3. Des Moines Printing House Craftsman
4. Proposal Development

- 5. Executive Internship
- 6. Development of Mini-Grants
- 7. Career Education In-Service
- 8. Participation in Iowa and other state Career Education Workshops

These areas will be expanded under the appropriate career education components.



SECTION 2

EVALUATION RESULTS

The evaluation results have been organized by program component. Initially, the performance and process objectives have been listed followed by the specific and general data related to the objectives in the component.

COMPONENT 1

Career Education Program - Elementary School (K-6)

Performance Objectives

Performance Objective #1a

By the end of the 1973-74 project year, the elementary students participating in the project will demonstrate knowledge of a minimum of 75 percent or more of the activities related to career involved in the production of a specific good or service, as measured by the Elementary Teacher Rating Form for Career Awareness.

Performance Objective #1b

By the end of the 1973-74 project year, the elementary students participating in the project will know, by selecting from a list of careers prepared by the teachers, five or more careers related to each student's identified characteristics, as measured by the Elementary Student Rating Form for Self-Awareness.

Process Objectives

Process Objective #1.1

By July 1, 1976, the project evaluator will prepare and submit to the Des Moines Career Education Project an evaluation report relating to the project's performance and process objectives as evidenced by the submitted report.

Process Objective #1.2

By August 1973, the nine pilot schools will have a working copy of a career education compendium of activities that contains:

- a. District career education goals by grade level
- b. At least one activity with related materials and instruction by subject for each activity
- c. Assessment procedures as evidenced by the printed compendium.

Process Objective #1.3

By May of each project year, elementary teachers in project schools developing career education instructional plans will have included career education objectives in at least 75 percent of the individual teacher plans as evidenced by the lesson plans.

Results

No specific evaluation data were collected for the performance objectives during the 1975-76 project year. Informal data continued to be collected by the project teachers on an informal basis following the procedures detailed during the 1974-75 project year.

Process objective #1.2 was completed during the initial project year and has continued to be attained as all elementary schools have been incorporated into the project. The present report provides documentation for process objective #1.1. Process objective #1.3 has been completed during the present project year on an informal basis following the procedure detailed during the previous project year.

In order to obtain both specific and general information regarding the elementary career education project a survey was mailed to each of the elementary schools. These data have been compiled for schools participating in the project for four, three, two, and one year. These data are presented in Tables 1 through 4.

TABLE 1
ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
 Elementary Component
 Schools Participating One Year
 N = 14

Questions	Responses	
	Number	Percent
1. How many times did your building steering committee meet this year?	1-5	5 36
	5-10	7 50
	Over 10	1 7
	None	1 7
2. How many staff meetings and/or in-service meetings did you have that related to career education?	1-5	10 70
	5-10	4 29
	Over 10	0 0
	None	0 0
3. Are you implementing career education by clusters?	Yes	14 100
	No	0 0
4. If yes, how many career education clusters did you implement this year?	2 Clusters	3 21
	3	5 36
	4	1 7
	5	2 14
	Over 5	3 21
5. Does your building have a planned sequenced cycle to follow?	Yes	9 64
	No	5 36
6. How often have teachers and/or students used the career education materials that your building has purchased?	Very little	0 0
	Sometimes	6 43
	Often	8 57
7. Did your building have an all school career education project activity?	Yes	9 64
	No	5 36
8. How often have parents or community people been utilized in the classroom?	Very little	2 14
	Sometimes	5 36
	Often	7 50
9. For which goals have you developed plans and activities?	Career awareness	0 0
	Self awareness	0 0
	Awareness for others	0 0
	All of the above	14 100
	None of the above	0 0

TABLE 1 (continued)
 ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
 Elementary Component
 Schools Participating One Year
 N = 14

Questions	Responses	
	Number	Percent
10. How have you informed the parents about career education?	Newsletters	11 79
	PTA meetings	6 43
	Parent Advisory Councils	9 64
	Individual teacher newsletters	3 21
	Not informed	2 14
	Other means	2 14
	(Respondents checked one or more areas).	
11. How would you rate your staff's understanding of career education?	Little under- (1)	0 0
	standing (2)	0 0
	(3)	3 22
	(4)	8 57
	Complete (5)	3 22
12. How effective do you feel your staff has been in implementing the career education concepts?	Little effect (1)	0 0
	(2)	0 0
	(3)	6 43
	Completely (4)	8 57
	effective (5)	0 0
13. How effective do you feel the career education central office staff has been in assisting your building in implementing the career education concepts to the schools?	Little effect (1)	0 0
	(2)	0 0
	(3)	2 14
	(4)	9 64
	Completely (5)	3 22
14. Do you feel that career education has been (will be) good for the students in the Des Moines schools?	Yes	14 100
	No	0 0
15. Please rate the importance of career education as part of the total education process.	Little impor- (1)	0 0
	tance (2)	0 0
	(3)	3 21
	(4)	7 50
	Very impor- (5)	4 29
	tant	

TABLE 2

12

ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
Elementary Component
Schools Participating Two Years
N = 9

Questions		Responses	
		Number	Percent
1. How many times did your building steering committee meet this year?	1-5	9	100
	5-10	0	0
	Over 10	0	0
	None	0	0
2. How many staff meetings and/or in-service meetings did you have that related to career education?	1-5	8	89
	5-10	1	11
	Over 10	0	0
	None	0	0
3. Are you implementing career education by clusters?	Yes	8	89
	No	1	11
4. If yes, how many career education clusters did you implement this year?	No. of Clusters	30	
	2	3	38
	3	2	25
	4	0	0
	5	3	38
	Over 5	0	0
5. Does your building have a planned sequenced cycle to follow?	Yes	9	100
	No	0	0
5. How often have teachers and/or students used the career education materials that your building has purchased?	Very little	1	11
	Sometimes	3	33
	Often	5	56
7. Did your building have an all school career education project activity?	Yes	4	44
	No	5	56
8. How often have parents or community people been utilized in the classroom?	Very little	0	0
	Sometimes	3	33
	Often	6	67
9. For which goals have you developed plans and activities?	Career awareness	2	22
	Self awareness	2	22
	Awareness for others	0	0
	All of the above	7	78
	None of the above	0	0
(Respondents checked one or more areas)			

TABLE 2 (continued)
 ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
 Elementary Component
 Schools Participating Two Years
 N = 9

Questions	Responses	
	Number	Percent
10. How have you informed the parents about career education?	Newsletters	9 100
	PTA meetings	5 56
	Parent Advisory Councils	6 67
	Individual teacher newsletters	5 56
	Not informed	0 0
	Other means	1 11
(Respondents checked one or more areas)		
11. How would you rate your staff's understanding of career education?	Little understanding (1)	0 0
	(2)	0 0
	(3)	6 67
	(4)	3 33
	Complete understanding (5)	0 0
12. How effective do you feel your staff has been in implementing the career education concepts?	Little effect (1)	0 0
	(2)	1 11
	(3)	5 56
	(4)	3 33
	Completely effective (5)	0 0
13. How effective do you feel the career education central office implementing the career education concepts to the schools?	Little effect (1)	0 0
	(2)	1 11
	(3)	5 56
	(4)	3 33
	Completely effective (5)	0 0
14. Do you feel that career education has been (will be) good for the students in the Des Moines schools?	Yes	9 100
	No	0 0
15. Please rate the importance of career education as part of the total education process.	Little impor- (1)	0 0
	tance (2)	0 0
	(3)	2 22
	(4)	3 33
	Very impor- (5)	4 44
	tant	

TABLE 3

14

ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
Elementary Component
Schools Participating Three Years
N = 13

Questions	Responses	
	Number	Percent
1. How many times did your building steering committee meet this year?	1-5	4 31
	5-10	6 46
	Over 10	2 15
	None	1 8
2. How many staff meetings and/or in-service meetings did you have that related to career education?	1-5	10 77
	5-10	3 23
	Over 10	0 0
	None	0 0
3. Are you implementing career education by clusters?	Yes	10 77
	No	3 23
4. If yes, how many career education clusters did you implement this year?	No. of clusters	
	2	2 18
	3	2 18
	4	1 9
	5	4 36
Over 5	2 18	
5. Does your building have a planned sequenced cycle to follow?	Yes	12 92
	No	1 8
6. How often have teachers and/or students used the career education materials that your building has purchased?	Very little	0 0
	Sometimes	3 23
	Often	10 77
7. Did your building have an all school career education project activity?	Yes	6 46
	No	7 54
8. How often have parents or community people been utilized in the classroom?	Very little	1 8
	Sometimes	6 46
	Often	6 46
9. For which goals have you developed plans and activities?	Career awareness	4 31
	Self awareness	3 21
	Awareness for others	1 8
	All of the above	9 69
	None of the above	0 0

(Respondents checked one or more areas)

TABLE 3 (continued)
ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
 Elementary Component
 Schools Participating Three Years
 N = 13

Questions	Responses	
	Number	Percent
10. How have you informed the parents about career education?	Newsletters	11 85
	PTA meetings	8 62
	Parent Advisory Councils	6 46
	Individual teacher newsletters	4 31
	Not informed	0 0
	Other means	1 8
(Respondents checked one or more areas)		
11. How would you rate your staff's understanding of career education?	Little understanding (1)	0 0
	(2)	0 0
	(3)	6 46
	(4)	6 46
	Complete understanding (5)	1 8
12. How effective do you feel your staff has been in implementing the career education concepts?	Little effect (1)	0 0
	(2)	2 15
	(3)	5 39
	(4)	6 46
	Completely effective (5)	0 0
13. How effective do you feel the career education central office staff has been in assisting your building in implementing the career education concepts to	Little effect (1)	0 0
	(2)	0 0
	(3)	3 23
	(4)	9 69
	Completely effective (5)	1 8
14. Do you feel that career education has been (will be) good for the students in the Des Moines schools?	Yes	13 100
	No	0 0
15. Please rate the importance of career education as part of the total education process.	Little importance (1)	0 0
	(2)	0 0
	(3)	6 46
	(4)	4 31
	Very important (5)	3 23

TABLE 4

16

ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
Elementary Component
Schools Participating Four Years
N = 3

Questions	Responses	
	Number	Percent
1. How many times did your building steering committee meet this year?	1-5	1 33
	5-10	2 67
	Over 10	0 0
	None	0 0
2. How many staff meetings and/or in-service meetings did you have that related to career education?	1-5	1 33
	5-10	2 67
	Over 10	0 0
	None	0 0
3. Are you implementing career education by clusters?	Yes	3 100
	No	0 0
4. If yes, how many career education clusters did you implement this year?	No. of clusters	
	2	1 33
	3	2 67
	4	0 0
	5	0 0
5. Does your building have a planned sequenced cycle to follow?	Yes	2 67
	No	1 33
6. How often have teachers and/or students used the career education materials that your building has purchased?	Very little	0 0
	Sometimes	0 0
	Often	3 100
7. Did your building have an all school career education project activity?	Yes	3 100
	No	0 0
8. How often have parents or community people been utilized in the classroom?	Very little	0 0
	Sometimes	1 33
	Often	2 67
9. For which goals have you developed plans and activities?	Career awareness	2 67
	Self awareness	2 67
	Awareness for others	1 33
	All of the above	1 33
	None of the above	0 0

(Respondents checked one or more areas)

TABLE 4 (continued)
ELEMENTARY CAREER EDUCATION SUMMARIZED SURVEY RESULTS
 Elementary Component
 Schools Participating Four Years
 N = 3

Questions	Responses	
	Number	Percent
10. How have you informed the parents about career education?	Newsletters	3 100
	PTA meetings	1 33
	Parent Advisory Councils	1 33
	Individual teacher newsletters	2 67
	Not informed	0 0
	Other means	0 0
11. How would you rate your staff's understanding of career education?	Little under- (1)	0 0
	standing (2)	0 0
	(3)	0 0
	(4)	2 67
	Complete (5) understanding	1 33
12. How effective do you feel your staff has been in implementing the career education concepts?	Little effect (1)	0 0
	(2)	0 0
	(3)	0 0
	(4)	3 100
	Completely (5) effective	0 0
13. How effective do you feel the career education central office staff has been in assisting your building in implementing the career education concepts to the schools?	Little effect (1)	0 0
	(2)	0 0
	(3)	1 33
	(4)	1 33
	Completely (5) effective	1 33
14. Do you feel that career education has been (will be) good for the students in the Des Moines schools?	Yes	3 100
	No	0 0
15. Please rate the importance of career education as part of the total education process.	Little impor- (1)	0 0
	tance (2)	0 0
	(3)	0 0
	(4)	2 67
	Very impor- (5) tant	1 33

The activities in the elementary school component were not restricted to the performance and process objectives. Six elementary schools participated in Business and Education Alliances. Each alliance served as a catalyst for the exchange of ideas and information between education and business. Three major activity areas were implemented, education, community improvement, and recreation. Each pair, an elementary school and a business discussed their own activities in these areas.

During the 1972-73 school year, the Career Education Advisory Committee, composed of business and industry personnel, focused on the elementary schools. Their report specified areas of concern and recommendations related to these areas. The project has worked closely with the elementary schools to meet these recommendations. Four general areas were identified: (1) extending career education to all elementary schools, (2) emphasizing integration of career education into the existing curriculum, enlarging the concept of career education to include uses of non-work time, and encouraging the enhancement of student self-concept. Recommendation one has been met and in-service activities related to the remaining three recommendations have been implemented.

The data presented in Tables 1-4 indicate that career education activities were implemented in the elementary schools in an orderly process. The results indicate that the purchased materials were used "often." School staff and central office staff received positive effective ratings in relation to implementing the career education concepts. These ratings showed that progress still needs to be made but an effective approach has been implemented to this point. Overall the general survey results were positive and showed that the project had been implemented in the schools and was working.

COMPONENT 2

Career Education Program - Junior High School (7-9)

Performance Objectives

Performance Objective #2

By the end of the 1973-74 project year, the junior high students participating in the project will demonstrate knowledge of careers in one or more occupational clusters by correctly matching ten or more careers with their description including skills required, as measured by the Junior High School Rating Form for Career Exploration.

Process Objectives

Process Objective #2.1

During the summer of 1973, the project director will coordinate curriculum teams of selected teachers, administrative staff, and representatives from business and industry to develop a course of study for junior high school in six of the fifteen occupational clusters of the U.S. Office of Education that contain:

- a. Concept and objectives by the various career levels in each cluster
- b. At least one activity for each career level objective that includes two or more of the following: classroom learning experiences, simulated career experiences, laboratory experiences
- c. Assessment procedures for each activity as documented by the developed course of study.

Process Objective #2.2

By February 1, 1974, and each proceeding year for the duration of the project, each project junior high principal will submit to the project director a plan for implementing at least four of the developed occupational clusters each year according to the needs and interests of the students as evidenced by the plan submitted.

Results

No specific performance data were collected by the project for performance objective #2. As in the elementary component such data were collected on an informal basis by individual project teachers during the school year.

During the summer of 1973, selected staff and community people developed curriculum materials related to six career education clusters; communication-media, public services, environment, hospitality/recreation, marketing/distribution, and transportation. These materials were field tested during the 1973-74 school year. All materials were reviewed and four additional clusters were developed during the summer of 1974. The additional clusters included; fine arts/humanities, business/office, health and consumer/home-making education. During the 1975 summer session, materials in five of the six areas were revised.

The implementation process was overall similar but varied in specifics from school to school. Each year the participating junior highs selected the career education clusters they would implement based on the interest of their students and instructors. Specific details related to this study were developed and remained at the school level.

Two programs at the junior high school level were surveyed during the 1975-76 school year. These were the world of construction and the world of manufacturing. Information was obtained from students, administrators, and parents regarding each program. These data are presented in Tables 5-10.

TABLE 5
PARENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Construction
N = 110

Questions	Responses		
	Yes	No	Undecided
1. My child's study of "The World of Construction" has been an asset to his/her education.	84	5	18
2. My child frequently made favorable comments about the construction class.	79	25	5
3. My child has frequently expressed a dislike for the construction class.	14	87	4
4. My child has benefited more from studying construction than he/she probably would have in the traditional industrial arts course (woodshop, metalshop, & mechanical drawing) typically offered in junior high schools.	32	19	57
5. I would have preferred my child to have an industrial arts program concentrating primarily on the development of skill in the use of woodworking machines and hand tools rather than a broad coverage of the construction industry.	20	48	39
6. The study of construction has given my child an opportunity to learn about possible occupational or career interests.	75	17	15
7. My child has expressed an interest in a particular career or occupation as a result of having been informed about it in the study of construction.	13	76	
8. It is a responsibility of industrial arts instruction to help students identify their career or occupational interests.	37	37	33
9. Are you disappointed that the study of construction did not require making numerous take-home objects?	19	84	5
10. Industrial arts instruction should restrict itself primarily to hobby and handicraft activity.	7	81	18

TABLE 5 (continued)

PARENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS

The World of Construction

N = 110

Questions	Responses		
	Yes	No	Undecided
11. Do you believe that the study of construction techniques and practices used by architects, engineers, city planners, craftsmen, homeowners, etc., is an important area of study for youth?	75	11	15
12. It is important for my child to know something about home construction (planning, designing, building, repairing, etc.).	82	10	6
13. It is necessary for my child to know something about acquiring a home (financing, purchasing property, contracting, etc.).	83	8	7
14. By studying and being involved in industrial arts activities, my child will have a better opportunity to identify the career or occupation in which he/she <u>might</u> like to work.	61	13	28
15. It is important for my child to be informed about labor unions, hiring practices, contracts, striking, negotiating, etc.	78	7	12
16. It is important for my child to learn about both management and production personnel and also, employee-employer relations.	85	8	9
17. Even if my child decides to work in a profession not directly related to industry, he/she would benefit from the study of construction.	84	6	10
18. I can see where I would have profited from the construction course when I was in junior high.	57	21	24
19. I have looked at "The World of Construction" books which my child uses in industrial arts.	32	67	1
20. If your response to question 19 was "Yes", please respond to statements A to D regarding the books.			
A. I found the instructional materials interesting.	27	7	12
B. I feel they are written at a level which is appropriate for junior high school age children.	28	2	16

TABLE 5 (continued)

PARENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Construction
 N = 110

Questions	Responses		
	Yes	No	Undecided
20. C. The information in the books appears to be in agreement with modern industrial practices.	24	5	22
D. The books reflect the type of learning I would like my child to receive from industrial arts.	28	7	14
21. Did you visit your child's construction course during open house, or at any other time during the school year?	39	64	
22. If you did, what was your general reaction?			
favorably impressed	31		
unfavorably impressed	2		
neutral	11		

TABLE 6

STUDENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Construction
N = 220

Questions	Responses		
	Yes	No	Undecided
1. Did you enjoy studying construction?	140	47	17
2. Would you recommend this course to your friends?	148	41	26
3. Do you think that students in all junior high schools should have a chance to study construction?	160	28	18
4. Do you feel that you now have a good general understanding of many phases of construction?	129	36	43
5. Do you feel that the experience you have had and the information you have gained in studying construction will be of value to you later in life?	125	45	39
6. Do you think you might like to work in some phase of construction as an adult?	63	102	44
7. Did the study of construction help you to decide what you might like to do?	60	119	28
8. Would you be interested in taking more courses in construction technology in junior or senior high if you had the opportunity?	92	83	42
9. When you were studying construction, did you usually want to spend more time in class than was allowed by your schedule?	106	75	22
10. Did you enjoy working as a member of a group in the laboratory activities?	146	31	28
11. Would you prefer to work on projects by yourself instead of working in a group?	68	111	27
12. Did you like working under the direction of a student foreman?	66	109	32
13. Did you have a chance to work as a foreman?	66	108	28
14. Did you find the readings in the textbook interesting?	50	129	33

TABLE 6 (continued)

STUDENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Construction
 N = 220

Questions	Responses		
	Yes	No	Undecided
15. Do you think that home reading assignments in construction are necessary for students to better understand the construction industry?	49	134	24
16. Did you find the production activities in the laboratory exciting?	96	55	54
17. Were you able to adequately perform the laboratory activities in your class?	134	40	38
18. Were the activities and directions outlined in the laboratory manual easy to follow?	124	52	29
19. Would you prefer to have more laboratory activities?	122	49	33
20. Generally speaking, do you think that the study of construction as presented in your class was easy for you to understand?	127	48	29
21. Would you like to make more projects that you could take home?	142	45	22
22. Do you feel there was enough materials, tools, and equipment available to adequately perform laboratory activities?	91	103	
23. Do you think enough laboratory space was available to adequately perform construction activities?	135	68	
24. Indicate your feelings about the amount of time allowed for adequately completing laboratory activities.			
Too much	18		
Just right	63		
Not enough	125		

TABLE 7

ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Construction
 N = 5

Questions	Responses		
	Yes	No	Undecided
1. Do you think that the overall program of the study of construction is appropriate for junior high school students to understand?	5	0	
2. Do you feel that the study of construction gives students a more comprehensive understanding of the "world of work" than they would obtain from a traditional junior high program of woods, metals, and drawing?	5	0	
3. Do you feel that a student who studies construction has a better understanding of a variety of career or occupational opportunities than a student who completes a traditional woodworking course?	5	0	
4. Do you feel that students who complete the study of construction have a good basic knowledge of the use of hand and power tools?	3	2	
5. Do you feel that construction students have a better understanding of the materials and practices used in construction technology than students who study traditional industrial arts?	5	0	
6. What have you observed about student enthusiasm regarding the construction course?			
Highly favorable	0		
Favorable	5		
Not very favorable	0		
7. What type of comments have you heard from parents concerning the study of construction?			
Highly favorable	0		
Favorable	5		
Not very favorable	0		
8. Does the study of construction presents as accurate a picture of construction that is possible in a school setting?	5	0	

TABLE 7 (continued)

ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Construction
 N = 5

Questions	Responses		
	Yes	No	Undecided
9. Have parents and other visitors come to your school to observe the construction classes?	4	1	
10. If yes, how has the quantity of visitation compared with visitations to other instructional programs in the school?			
More	3		
Less	0		
Don't know	1		
11. If yes to last item, what has been their reaction to the program?			
Very favorable	0		
Favorable	4		
Unfavorable	0		
12. Do you think that <u>all</u> junior high students would benefit from studying construction?	2	3	
13. Have you noticed changes in your industrial arts teachers' attitudes and/or performance since the study of construction was introduced in the school?			
Positive	1		
Negative	0		
No change	3		
14. Has the construction course brought about a response from other teachers in your school?			
Intense interest	0		
Mild interest	4		
No interest	1		
15. The content in the construction course is more structured than most traditional industrial arts courses to insure that course objectives may be met. What is your impression of this method as compared with methods used in traditional industrial arts courses?			
Strongly approve	2		
Approve	3		
Don't approve	0		

3

TABLE 7 (continued)

ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Construction
 N = 5

Questions	Responses		
	Yes	No	Undecided
13. Has there been any particular problem in placing slow learners in the construction course?	0	5	
17. How have slow learners succeeded in the construction course as compared to those taking traditional industrial arts? Better Just as well Poorer Don't know			4 0 0 1
18. Has there been any indication of transfer of subject matter from the construction course to other subject areas?	3	0	
19. Did the construction course cost more per student to operate than the traditional industrial arts course?	4	0	
20. If you were to construct new industrial arts facilities, do you think that the initial cost of equipping the construction laboratory would be more than the cost of equipping a traditional woodworking laboratory? The construction laboratory would cost more The construction laboratory would cost about the same The construction laboratory would cost less			0 2 3
21. After the construction laboratory is fully equipped, do you think it will cost more to maintain?	2	1	
22. If your responses to the last three questions are "yes", do you feel that the new program is worth a higher budget?	3	0	
23. Are your students charged for the materials they use in the traditional industrial arts courses?	5	0	
24. Are your students charged for the materials they use in the study of construction?	0	5	
25. Did you have any particular custodial problems with the construction laboratory?	0	5	

TABLE 7 (continued)

ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Construction

Questions	Responses		
	Yes	No	Undecided
26. Did the required time for the construction course differ from the time allotted for industrial arts courses in the past? Greater Less Same	1 0 4		
27. Have you had any overall program scheduling problems as a result of the IACP program in your school?	0	5	
28. Did you have difficulty in placing transfer students in the construction course during the school year?	1	4	
29. Did you offer traditional industrial arts courses during the same time as the construction course?	2	3	
30. Did you have students who wanted to take the construction course but could not get into the course for some reason?	1	4	
31. What is the maximum number of students that were allowed to enroll in each construction course? 10 - 20 20 - 30 > 30	0 3 0		
32. If you limited the enrollment, did this cause a hardship regarding other industrial arts teacher's loads?	0	5	
33. Please estimate the percentage of students electing to enroll in the manufacturing course after taking the construction course. < 40 40 - 70 70 - 100 Don't know	0 1 1 1		

TABLE 7 (continued)

ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Construction
 N = 5

Questions	Responses		
	Yes	No	Undecided
34. How does your response to preceding item compare with students electing to enroll in traditional industrial arts elective courses after completing traditional industrial arts requirements in years before LACP courses were used in your school? Greatly Same Less Don't know			0 3 0 1
35. Do you feel that the problem of discipline has been influenced as a result of students studying construction, as compared with traditional industrial arts courses? Reduced Increased No change			0 0 4
36. What is your opinion about the quantity of reading required of students in the study of construction? Not enough Adequate amount Too much			0 2 3

TABLE 8
 PARENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Manufacturing
 N = 88

Statements/Questions	Responses		
	Yes	No	Undecided
1. My child's study of "The Word of Manufacturing" has been an asset to his/her education.	73	4	7
2. My child frequently made favorable comments about the manufacturing class.	68	11	6
3. My child frequently expressed a dislike for the manufacturing class.	6	72	5
4. My child has benefited <u>more</u> from studying manufacturing than he/she probably would have in the traditional industrial arts course (woodshop, metalshop, & mechanical drawing) typically offered in junior high schools.	49	10	27
5. I would have preferred my child to have an industrial arts program concentrating primarily on the development of skills in the use of metalworking machines and hand tools rather than a broad coverage of the manufacturing industry.	6	60	19
6. The study of manufacturing has given my child an opportunity to learn about possible occupational or career interests.	58	16	10
7. My child has expressed an interest in a particular career or occupation as a result of having been informed about it in the study of manufacturing.	12	47	25
8. It is a responsibility of industrial arts instruction to help students identify their career or occupational interests.	27	29	26
9. Are you disappointed that the study of manufacturing did not require making numerous take-home projects?	6	71	
10. Industrial arts instruction should <u>restrict</u> itself primarily to hobby and handicraft activities.	7	69	11
11. Do you believe that the study of manufacturing techniques and practices used by designers, engineers, tradesmen, production workers, etc., is an important area of study for youth?	72	4	4

TABLE 8 (continued)

PARENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Manufacturing
N = 88

Statements/Questions	Responses		
	Yes	No	Undecided
12. It is important for my child to know something about the production of consumer products (planning, designing, producing, repairing, servicing, etc.).	73	4	3
13. It is necessary for my child to know something about purchasing products (financing, quality, workmanship, etc.).	76	4	0
14. By studying and being involved in industrial arts activities, my child will have a better opportunity to identify the career or occupation in which he/she might like to work.	62	6	13
15. It is important for my child to be informed about labor unions, hiring practices, contracts, striking, negotiating, etc.	68	5	7
16. It is important for my child to learn about both management and production personnel and also, employee-employer relations.	76	4	0
17. Even if my child decided to work in a profession not directly related to industry, he/she would benefit from the study of manufacturing.	71	3	6
18. I can see where I would have profited from the manufacturing course when I was in junior high.	61	7	10
19. I have looked at "The World of Manufacturing" books which my child uses in industrial arts.	20	60	1
20. If your response to Question 19 is "Yes", please respond to statements A to D regarding the books.			
A. I found the instructional materials interesting.	21	5	0
B. I feel that they are written at a level which is appropriate for junior high school age children.	16	7	2

TABLE 8 (continued)
 PARENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Manufacturing
 N = 88

Statements/Questions	Responses		
	Yes	No	Undecided
C. The information in the books appears to be in agreement with modern industrial practices.	18	3	6
D. The books reflect the type of learning I would like my child to receive from industrial arts.	20	3	6
21. Did you visit your child's manufacturing course during open house, or any other time during the school year?	40	43	
22. If you did, what was your general reaction?			
favorably impressed	33		
unfavorably impressed	2		
neutral	6		

TABLE 9
STUDENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Manufacturing *
N = 188

Statements/Questions	Responses		
	Yes	No	Undecided
1. Did you enjoy studying manufacturing?	137	19	20
2. Would you recommend this course to your friends?	126	32	14
3. Do you think that students in all junior high schools should have a chance to study manufacturing?	149	10	16
4. Do you feel that you now have a good general understanding of many phases of manufacturing?	117	28	30
5. Do you feel that the experience you have had and the information you have gained in studying manufacturing will be of value to you later in life?	109	33	35
6. Do you think you might like to work in some phase of manufacturing as an adult?	57	67	52
7. Did the study of manufacturing help you to decide what you might like to do?	53	87	37
8. Would you be interested in taking more courses in manufacturing technology in junior or senior high school if you had the opportunity?	85	51	38
9. When you were studying manufacturing, did you usually want to spend more time in class than was allowed by your schedule?	102	49	21
10. Did you enjoy working as a member of a group in the laboratory activities?	92	52	30
11. Would you prefer to work on projects by yourself instead of working in a group?	122	33	22
12. Did you like working under the direction of a student foreman?	35	64	67
13. Did you have a chance to work as a foreman?			
Yes, very often	13		
Sometimes	44		
Never	100		
14. Did you find the readings in the textbook interesting?	45	94	20

TABLE 9 (continued)
 STUDENT QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Manufacturing
 N = 188

Statements/Questions	Responses		
	Yes	No	Undecided
15. Do you think that home reading assignments in manufacturing are necessary for students to better understand the manufacturing industry?	24	102	30
16. Did you find the production activities in the laboratory exciting?	92	31	34
17. Were you able to adequately perform the laboratory activities in your class?	112	26	19
18. Were the activities and directions outlined in the laboratory manual easy to follow?	104	27	31
19. Would you prefer to have more laboratory activities?	103	34	19
20. Generally speaking, do you think that the study of manufacturing as presented in your class was easy for you to understand?	105	24	28
21. Would you like to make more projects that you could take home?	130	16	10
22. Do you feel that there was enough materials, tools, and equipment available to adequately perform laboratory activities?	108	46	
23. Do you think enough laboratory space was available to adequately perform manufacturing activities?	121	37	
24. Indicate your feelings about the amount of time allowed for adequately completing laboratory activities.	17	67	43

TABLE 10
ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Manufacturing
N = 6

Statements/Questions	Responses		
	Yes	No	Undecided
1. Do you think that the overall program of the study of manufacturing is appropriate for junior high school students to understand?	4	0	
2. Do you feel that the study of manufacturing gives students more <u>comprehensive</u> understanding of the "world of work" than they would have received from a traditional junior high program of woods, metals, and drawing?	4	0	
3. Do you feel that a student who studies manufacturing has a better understanding of a variety of career or occupational opportunities than a student who completes a traditional woodworking course?	4	0	
4. Do you feel that students who complete the study of manufacturing have a good basic knowledge of the use of hand and power tools?	3	1	
5. Do you feel that manufacturing students have a better understanding of the materials and practices used in manufacturing technology than students who study traditional industrial arts?	4	0	
6. What have you observed about student enthusiasm regarding the manufacturing course?			
Highly favorable	2		
Favorable	2		
Not very favorable	0		
7. What type of comments have you heard from parents concerning the study of manufacturing?			
Highly favorable	2		
Favorable	2		
Negative	0		
No Comment	0		
8. Does the study of manufacturing present as accurate a picture of manufacturing technology as is possible in a school setting?	4	0	0

TABLE 10 (continued)
ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
The World of Manufacturing
 N = 4

Statements/Questions	Responses		
	Yes	No	Undecided
9. Have parents and other visitors come to your school to observe the manufacturing classes?	2	2	0
10. If yes, how has the quantity of visitation compared with visitations to other instructional programs in the school?			
More	1		
Less	0		
Don't Know	1		
No Response	0		
11. If yes, what has been their reaction to the program?			
Very favorable	1		
Favorable	1		
Unfavorable	0		
No Response	0		
12. Do you think that <u>all</u> junior high students would benefit from studying manufacturing?	4	0	
13. Have you noticed changes in your industrial arts teachers' attitudes and/or performance since the study of manufacturing was introduced in the school?			
Positive	3		
Negative	0		
No Change	1		
14. Has the manufacturing course brought about a response from other teachers in your school?			
Intense interest	0		
Mild interest	3		
No interest	1		
No response	0		
15. The content in the manufacturing course is more structured than most traditional industrial arts courses to insure that course objectives may be met. What is your impression of this method as compared with methods used in traditional industrial arts courses?			
Strongly approve	2		
Approve	2		
Don't approve	0		



TABLE 10 (continued)
 ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Manufacturing
 N = 4

Statements/Questions	Responses		
	Yes	No	Undecided
16. Has there been any particular problem in placing slow learners in the manufacturing course?	3	1	
17. How have slow learners succeeded in the manufacturing course as compared to those taking traditional industrial arts? Better Just as well Poorer Don't know No response	1 2 1 0 0		
18. Has there been any indication of transfer of subject matter from the manufacturing course to other areas?	3	1	0
19. Did the manufacturing course cost more per student to operate than the traditional industrial arts course? Yes No Don't know No response	2 0 2 0		
20. If you were to construct new industrial arts facilities, do you think that the initial cost of equipping the manufacturing laboratory would be more than the cost of equipping a traditional metalworking laboratory? The manufacturing laboratory would cost more The manufacturing laboratory would cost about the same The manufacturing laboratory would cost less No response	0 1 2 1		
21. After the manufacturing laboratory is fully equipped, do you think it will cost more to maintain? Yes No About the same No response	0 2 2 0		

TABLE 10 (continued)
 ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Manufacturing
 N = 4

Statements/Questions	Responses		
	Yes	No	Undecided
22. If your responses to the last three questions are "yes", do you feel that the new program is worth a higher budget?	2	0	1
23. Are your students charged for the materials they use in the traditional industrial arts courses?	4	0	0
24. Are your students charged for materials used in the study of manufacturing?	3	1	0
25. Did you have any particular custodial problems with the manufacturing laboratory?	0	4	0
26. Did the required time for the manufacturing course differ from the time allotted for industrial arts courses in the past?			
Greater	0		
Less	0		
Same	3		
No response	1		
27. Have you had any overall program scheduling problems as a result of the IACP program in your school?	0	4	0
28. Did you have difficulty in placing transfer students in the manufacturing course during the school year?	0	4	0
29. Did you offer traditional industrial arts courses during the same time as the manufacturing course?	0	4	0
30. Did you have students who wanted to take the manufacturing course but could not get into the course for some reason?	2	2	
31. What is the maximum number of students that were allowed to enroll in each manufacturing class?			
10-20	0		
20-30	2		
30	0		
Approximately	25		
32. If you limited the enrollment, did this cause a hardship regarding other industrial arts teachers' loads?	0	3	0

TABLE 10 (continued)
 ADMINISTRATOR QUESTIONNAIRE SUMMARIZED SURVEY RESULTS
 The World of Manufacturing
 N = 4

Statements/Questions	Responses		
	Yes	No	Undecided
33. Have enrollment figures changed in the selection of industrial arts elective courses in the upper grades since IACP courses have been taught in your school?			
Greatly	0		
Same	2		
Less	0		
Don't know	2		
No response	0		
34. Do you feel that the problem of discipline has been influenced as a result of students studying manufacturing as compared with traditional industrial arts courses?			
Reduced	0		
Increased	0		
No change	4		
No response	0		
35. What is your opinion about the quantity of reading required of students in the study of manufacturing?			
There is not enough	0		
Adequate	2		
Too much	2		

At the junior high school level the project also focused on many areas outside the performance and process objectives. In-service training, building, level, district, level and out-of-district, the business and education alliances program, Career Expo, The Des Moines Club of Printing House Craftsman, and the Career Education Advisory Committee Report were areas in which the project was involved. The in-service activities are generally described under the staff development and in-service component although the identification of building coordinators, some district and out-of-district career education in-service, and the sharing of ideas certainly went beyond the activities specified in the proposal.

Five industries participated in the business and education alliance program at the junior high school level. The activities were similar to those described at the elementary school level.

The Career Expo was sponsored by the West Des Moines Junior Chamber of Commerce and provided space for 70 exhibits representing education, trade association, military, unions, and large businesses and industries. The Junior Chamber of Commerce provided transportation for for all ninth grade students to tour these exhibits.

The Des Moines Club of Printing House Craftsman provided field trips to selected printing establishments. The club provided pre-tour information and a bus guide, while the project paid for the transportation.

Tables 5-10 support the two programs served, the world of construction and the world of manufacturing. Although not all students would enter these areas as careers the exposure and involvement was positive at the student, parent, and the administrative levels. Generally, these "hands on" types of activities, with much involvement, coincided with student interest at the junior high school level.

In Table 5, the data indicate more than three-fourths of the parents considered the course on the world of construction as important and beneficial

to their children. In addition, 84 percent of the parents were not disappointed that their children did not bring home projects as in traditional industrial arts classes.

The data presented in Table 6 reflect student feelings regarding the world of construction. Approximately two-thirds of the students indicated that they not only enjoyed the class but also would recommend the class to their friends.

Table 7 presents the responses from the administrators involved in the project. These data are also positive but not all administrators responded to all questions.

Tables 8 through 10 present the same respondents in relation to the course, the world of manufacturing. Seventy-three percent of the parents indicated the course had been an asset to their children. In addition nearly half of the parents indicated this course was better than the more traditional industrial arts courses while only 10 percent of the parents responded that the traditional industrial arts classes were better. The students were also positive toward the world of manufacturing program as approximately 70 percent indicated they had enjoyed the course and would recommend the course to other students. Administrators of the program were also positive as they responded to each of the areas.

Overall the data were consistent between the two course offerings. In both areas the parents were not disappointed regarding students bringing home projects but the students did want to have more individual projects. Generally, the course did not help the students to decide what career they might like but did assist in narrowing the choice.

COMPONENT 3**Career Education Program - Senior High School (10-12)****Performance Objectives****Performance Objective #3**

By the end of the second and third project years, the senior high school students participating in the project will comprehend with at least 75 percent accuracy one or more sub-clusters of the 15 occupational clusters as measured by teacher-diagnosed tests of exercises.

Process Objectives**Process Objective #3.1**

By April 1, 1974, a committee of selected teachers, counselors, and administrators, appointed by the Director of Secondary Education, will have developed the general goals and objectives for integrating career education in the curriculum of the high schools in Des Moines as evidenced by the developed goals and objectives.

Process Objective #3.2

During the fall semester 1974, the project director will coordinate curriculum teams consisting of selected teachers, counselors, administrators, and representatives from business and industry to develop a study guide for specific sub-clusters within the selected occupational clusters, according to the needs and interests of high school students in Des Moines, to be used by the senior high project school as evidenced by the developed curriculum.

Process Objective #3.3

By January 1, 1975, and January 1, 1976, each project high school principal will submit to the project director a plan for implementing at least one sub-cluster program in four of the fifteen occupational clusters according to the needs and interests of their students as evidenced by the plan submitted.

Results

No specific performance data were collected at the senior high school level.

The implementation of the career education activities at the senior high school level was generally one year behind in implementation. Initial planning did occur, as projected, during the 1974-75 school year but was not completed. Generally the two high schools chose differing implementation approaches; one, an inter-disciplinary approach between two departments and the second an integrated approach on a scope and sequence basis. The 1975-76 school year was devoted to finalizing procedures and materials related to these approaches and piloting certain procedures. It is also noted that both high schools were involved in a north central evaluation during the 1975-76 school year; however, both schools should be ready for implementation during the 1976-77 school year.

Additional activities at the senior high school consisted of participation in the business education alliance, executive internship program, the Career Expo, and several building and district level in-service programs.

COMPONENT 4

Career Education Program - Technical High School (10-12)

Performance Objective

Performance Objective #4

By the end of the 1973-74 project year, students at Tech High at each grade level in four core areas will demonstrate their comprehension of skills, aptitudes, and attitudes necessary for employment by correctly identifying one or more careers matching their own skills, aptitudes, and attitudes (self-assessment) with corresponding occupations requiring similar skills, aptitudes, and attitudes (teacher-prepared procedures).

Process Objectives

Process Objective #4.1

By April 1, 1974, the principal of Technical High School will submit to the project director a master plan for updating all existing programs and developing a minimum of two new programs, one of which will be in agri-business, as evidenced by the developed plans.

Process Objective #4.2

By June 1, 1974, the district administration will approve a plan for programming at Technical High School that will include:

- a. Approved instructional goals
- b. Authorized equipment purchases and disposal
- c. Budget allocations
- d. One new program related to the agri-business and one program in health occupations as evidenced by approval by the district administration.

Process Objective #4.3

By August 1973, the Des Moines Independent Community School District will approve plans for a transportation system with the Des Moines Transit, or purchase buses

to provide direct transportation sometime between September 1, 1973, and January 1, 1974, to Technical High School that will facilitate student travel from his area school on half-day basis or from his home to Technical High for a daily program as evidenced by the contract agreement between the DMICSD and DMT on the schedule of bus service provided by the district.

Results

No specific performance data were collected from the students at Technical High School during the 1975-76 school year. Informal data collections by individual teachers were summarized by individual teachers but not on a scheduled basis.

Two new programs were implemented during the project period, practical nursing and agri-business. It is noted that 50 percent of the nursing students passed the state test for licensed practical nursing during the initial administration of the test.

During the 1975-76 school year, the General Advisory Committee for career education investigated career education at the technical high school. Specific recommendations are presented in the fifth report.

COMPONENT 5

Handicapped Career Center

Performance Objective

Performance Objective #5

By the end of the second and third project years, the handicapped students and educable mentally retarded students will demonstrate their comprehension of career potential by performance in school and in a sheltered workshop as measured by teacher-developed checklists.

Process Objectives

Process Objective #5.1

By December 31, 1973, the Director of Planning will file with the project director a master plan for a handicapped career center which includes:

- a. Vocational assessment and evaluation
- b. Sheltered workshop
- c. Work experience
- d. Job development
- e. Evidence of cooperation and appropriate planning with service agencies who serve the handicapped as evidenced by the submitted master plan.

Process Objective #5.2

By April 1, 1974, an ad hoc committee, organized by the director of planning and development, will develop educational specifications for a handicapped career center as evidenced by the developed educational specifications.

Results

The Iowa Area Educational Agency serving Des Moines is responsible for all special educational programs. The Des Moines schools have contracted through this agency for the operation of the handicapped program. Thus the direction of the program has changed since the formation of the objectives. Initial work on the master plan and educational specifications have been completed.

COMPONENT 6

Career Education for School Dropouts

Performance Objectives

Performance Objective #6

By the end of each project year, students enrolled in the Greater Des Moines Educational Center (south) will demonstrate their comprehension of self-characteristics and careers by matching one or more careers to their own description of self (Characteristics) as measured by the Greater Des Moines Educational Center Self-Awareness Scale.

Performance Objective #6a

By the end of each project year, students enrolled in the Greater Des Moines Educational Center (south) will demonstrate their knowledge of careers in one or more occupational clusters by correctly matching fifteen or more careers with their descriptions including skills required, as measured by Greater Des Moines Educational Center Rating Form for Career Knowledge.

Process Objectives

Process Objective #6.1

By June 30, 1974, the Director of Secondary Education will include in the district budget cost center allocations for at least two drop-in centers as evidenced by the record of cost allocations in the district budget.

Process Objective #6.2

By December 1 of the second and third project year, the district coordinator of drop-in centers will file with the project director career education plans for at least one center that includes:

- a. In-center instruction available to pupils related to five of the fifteen career clusters
- b. Planned co-op experience for 25 percent of the pupils enrolled
- c. Skill training related to three job clusters as evidenced by the documented plans.

Results

A second drop-in center was established with a strong emphasis in career education being included in the career education project budget. The majority of the funds for this center during the project years were incorporated into the districts budget. Generalized plans for career education activities have been submitted to the project director but specific activities remain the responsibility of local instructors. Local records do include the types of career education experience, the number of experiences, and the number of students involved in the overall activities. No specific performance data, as described in the performance objectives, were collected.

COMPONENT 7

Career Guidance Services

Performance Objectives

Performance Objective #7a

By the end of each project year, secondary students in participating project schools will respond positively (≥ 60 percent) to the materials in the multi-media career information center as measured by a central office staff prepared standardized questionnaire.

Performance Objective #7b

By the end of each project year, teachers in participating secondary project schools will respond positively (≥ 60 percent) to the type of materials in the career information center as the materials relate to the teacher's subject areas as measured by a central office staff prepared standardized questionnaire.

Process Objectives

Process Objective #7.1

By the end of each project year, project elementary teachers in one or more prime service areas with the assistance of elementary career education program specialists will have developed career education activities for students with educational, socioeconomic, and/or physical handicaps as evidenced by the submitted plans.

Process Objective #7.2

By September 1, 1974, the guidance supervisor will provide all junior and senior high school counselors Career Interest Survey booklets as evidenced by the number of booklets sent to the junior and senior high school counselors.

Process Objective #7.3

Prior to the administration of the Career Interest Survey, the Pupil Service Coordinator at each junior and senior high school will submit a plan to the project director for implementing career education activities using the results of the Career Interest Survey as evidenced by the submitted plans.

Process Objective #7.4

During June, July, and August 1974, the Supervisor of Guidance, assisted by a selected group of junior and senior high school counselors, will develop a Career Activities guide which will include:

- a. Description of field trips
- b. Names of career resource people
- c. Names of career reference material
- d. Miscellaneous activities that have been successful in providing junior and senior high students experience in careers as evidenced by the developed grade.

Process Objective #7.5

By December of each project year, junior and senior high school principals involved in the project, assisted by their counselors and librarians, will submit to the project director plans for establishing a career information center in each school's media or library center as evidenced by the submitted plans.

Results

The Career Interest Survey was administered to all students, grades seven through twelve, in the Des Moines schools. These results assisted the counselors and teachers in selecting their school's career clusters and ordering materials for these clusters and the multi-media center. Information centers were operational in all junior high schools and two senior high schools.

All process objectives were completed with the exception of objective #7.4. The Career Activities guide was not developed.

Tables 11 and 12 present summarized information regarding the use of the information center. Table 11 presents teachers data and Table 12 presents the student responses.

TABLE 11

**SUMMARIZED RESPONSES OF TEACHERS TOWARD
THE GUIDANCE AND CAREER INFORMATION CENTER**

1. Are you aware of the multi-media career information center in your school?

60 Yes 0 No

2. Please check the goal area in which you recommended material for the Career Information Center.

29 CAREER INFORMATION AND EXPLORATION (career filmstrips, cassette tapes, magazines, books, etc.)

9 CAREER TESTING (interest, aptitude, attitude tests)

12 CAREER PLANNING (discussion of career goals with other people)

6 CAREER PLACEMENT (using school placement services)

19 CAREER MOTIVATION (promotes student interest in career exploration)

3. Are the materials you recommended for the Career Information Center now in the Center? Please check.

Yes

<u>30</u>	Career Information	<u>7</u>
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<u>8</u>	Career Testing	<u>9</u>
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<u>15</u>	Career Planning	<u>7</u>
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<u>9</u>	Career Placement	<u>10</u>
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<u>10</u>	Career Motivation	<u>22</u>
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4. Did you make student assignments to the Career Information Center?

16 Yes 39 No

- a. Were assignments on individual basis?

17 Yes 20 No

- b. Were assignments to total class?

11 Yes 28 No

TABLE 11 (continued)

**SUMMARIZED RESPONSES OF TEACHERS TOWARD
THE GUIDANCE AND CAREER INFORMATION CENTER**

-
5. If so, were the assignments in conjunction with one or more of your lesson plans?

11 Yes 29 No

6. In what areas have you assigned materials for students to utilize? Please check.

18 Career Information

3 Career Testing

12 Career Planning

6 Career Placement

9 Career Motivation

TABLE 12

**STUDENT SURVEY SUMMARIZED GUIDANCE
AND CAREER INFORMATION RESULTS**

Question	Grades			
	7	8	9	
1. How many times did you use the Career Information Center during the school year?	1-5 5-10 >10	22 6 0	13 1 2	10 4 2
2. Check the type of areas in the center that you used (A, B, C, D,) and complete the matching areas in this questionnaire.				
A. _____ CAREER INFORMATION AND CAREER EXPLORATION (career filmstrips, cassette tapes, magazines, books, etc.)	A.	19	13	13
B. _____ CAREER TESTING (interest, aptitude, attitude tests)	B.	12	6	5
C. _____ CAREER PLANNING (Has your use of the Career Information Center led to your discussion of career goals with other people?)	C.	11	4	4
D. _____ CAREER PLACEMENT (Using school placement services)	D.	1	0	2
Directions				
For each of the areas checked above, please answer the question that relates to that area.				
A. CAREER INFORMATION				
1. Did these materials assist you in making career decisions?	Yes No	15 9	14 1	10 3
2. Which of the following materials was most beneficial? Please check.				
_____ a. filmstrips	A.	7	10	5
_____ b. cassette tapes	B.	5	6	2
_____ c. magazines	C.	6	2	4
_____ d. books	D.	19	5	5
_____ e. other (please identify) _____	E.	7	3	3

TABLE 12 (continued)

**STUDENT SURVEY SUMMARIZED GUIDANCE
AND CAREER INFORMATION RESULTS**

Question	Grades				
	7	8	9		
3. After using materials in the Career Information Center, did you discover other career opportunities you were not aware of previously?	Yes	21	12	10	
	No	3	0	2	
4. After using the materials in the Career Information Center, did you continue your investigation of career opportunities?	Yes	12	8	7	
	No	12	4	5	
<u>B. CAREER TESTING</u>					
1. Did these tests assist you in making career decisions?	Yes	9	8	4	
	No	14	4	7	
2. Which of the following tests were most beneficial? Please check.					
_____ a. aptitude tests	A.	2	6	1	
_____ b. interest tests	B.	13	9	6	
_____ c. attitude tests	C.	7	4	2	
_____ d. other (please identify) _____	D.	5	0	2	
<u>C. CAREER PLANNING</u>					
1. After visiting the Career Information Center, did you discuss the information with: (check more than one response if needed)	_____ the counselor		6	0	0
	_____ teachers		9	2	2
	_____ your parents		8	6	2
	_____ students		18	6	4
	_____ other		5	1	5
<u>D. CAREER PLACEMENT</u>					
1. Do you know that your school has a Youth Employment Counselor?	Yes	6	7	4	
	No	12	2	3	

TABLE 12 (continued)

**STUDENT SURVEY SUMMARIZED GUIDANCE
AND CAREER INFORMATION RESULTS**

Question	Grades		
	7	8	9
2. What types of services did you use? Please check.			
___ a. Rent-a-Kid Services (lawn mowing, snow shoveling, etc.)	A. 2	2	2
___ b. Part-time (short interval)	B. 2	3	1
___ c. Summer job	C. 1	0	1
___ d. Part-time (all year)	D. 0	0	0
___ e. Full-time	E. 2	1	0
3. Could the placement services be improved in your school?	Yes	5	2
	No	10	4
4. If your answer to question #3 was Yes, please list your suggestions for improvement.			

COMPONENT 8
Career Placement, Job Placement, and Follow-up

Process Objectives

Process Objective #8.1

By April 1974, the Director of Planning and Development will submit a plan for permanently moving the Career Placement Center from Tech High School to a more appropriate location to serve the total district, as evidenced by the plan relating the new Career Placement Center.

Process Objective #8.2

During each project year, the Career Placement Center Coordinator assisted by the respective satellite offices will serve secondary students seeking full-time or part-time employment as evidenced by the documentation of the career placement center records.

Process Objective #8.3

During the second and third project years, the Career Placement Center Coordinator will conduct a follow-up survey on a sampling of all secondary students (graduates and non-graduates) every two years for ten years to determine the career in which the student is employed plus additional information determined beneficial for improvement of curriculum as evidenced by the follow-up results.

Process Objective #8.4

By January 1974, the Director of Planning and Development will submit plans for maintaining and operating the Career Placement Center to the U.S. Department of Labor and other appropriate agencies for finding assistance as evidenced by the submitted plans.

Process Objective #8.5

By June 30, 1974, the Career Placement Center Coordinator will cause to be placed in jobs or training programs at least 75 percent of the pupils seeking employment who terminated their education during the school year, as evidenced by Career Placement Center records.

Results

The responsibility for placement and follow-up services has been reassigned to the supervisor of guidance, so coordination of guidance and career education efforts are being examined and finalized.

Process objectives 8.1, 8.4, and 8.5 have been reassigned to the guidance department. Employment records are available at the local level. One year follow-up surveys related to process objective 8.3 have been completed.

COMPONENT 9
Vocational Youth Organizations

Performance Objective

Performance Objective #9

By the end of each project year, students in vocational programs will demonstrate application of leadership by the increasing number of students involved in student designed activities (use of 1973-1974 as base) and by increasing the number of clubs being founded, as measured by youth organization records.

Process Objectives

Process Objective #9.1

During the summer of 1974, the project director, assisted by the vocational club advisors, will develop a guide outlining procedures for establishing and monitoring youth organizations as evidenced by the developed goals.

Process Objective #9.2

By September 1, 1974, the project director will provide printed guides outlining procedures for establishing and monitoring vocational youth organizations to all district secondary schools as evidenced by the number of guides distributed to the district schools.

Results

A survey of vocational youth organizations was completed and the summarized results are presented in Table 13. The process objective activities have been completed during the preceding project year.

TABLE 13

SUMMARIZED VOCATIONAL YOUTH ORGANIZATION RESULTS
Vocational Youth Organization Record Form
 (Four vocational youth organizations - DECA, VICA, OEA, FFA)

Questions	Response
1. What is the total number of students in your vocational classes?	1626
2. How many of your total number of students (question #1) are members of the identified organization?	513
3. How many adults (teachers, industry people, and other adults relating to your program) are members of the organization?	26
4. What percentage of student activities were scheduled during the school day? (approximate) Please check.	
0-25% _____	5
26-50% _____	2
51-75% _____	2
76-100% _____	4
5. Did students from your club participate in state meetings?	
Yes _____	14
No _____	0
If so, approximately what percentage of students participated?	
0-25% _____	4
26-50% _____	4
51-75% _____	1
76-100% _____	4
6. Indicate the number of students from your club entering any of the national competitive activities.	
National office candidate _____	6
Competitive activities _____	65
7. Did students in your club attend national meetings?	
Yes _____	6
No _____	7
If so, approximately what percentage of students attended?	
0-25% _____	4
26-50% _____	1
51-75% _____	0
76-100% _____	1

COMPONENT 10
Staff Development-Career Education

Performance Objective

Performance Objective #10

At the end of the pre-service workshop, the staff participating in career education staff development will demonstrate knowledge of activities for teaching career education concepts within their subject areas by listing an average of six activities, as measured by a central office staff-developed workshop evaluation form.

Process Objectives

Process Objective #10.1

By November 1 each year, the project school principals will submit to the project director a plan for career education staff development activities in their buildings, as evidenced by the submitted plan.

Process Objective #10.2

In August of each project year, all professional project staff members in schools new to the project will participate in a three-day pre-service workshop, as evidenced by workshop agendas and attendance lists on file in the project director's office.

Process Objective #10.3

By April of each project year, the director of the Des Moines-Drake Institute will submit to the school district a plan for cooperative training programs (career education) for pre-service and in-service teacher training, as evidenced by the submitted plan.

Results

Pre-service performance data were collected and summarized. These data were reported in the final quarterly report to the regional office of education.

Other in-service and staff development activities were held at the individual schools and at the district February in-service. During the February 1976 in-service over 300 teachers attended the career education meeting.

Three staff development classes have been conducted with approximately 20 teachers enrolled in each class.

Local in-service was held on scheduled Wednesdays with career education an option. Further, section meetings and district meetings provided opportunities for sharing.

Generally staff in-service in the elementary schools relating to career education occurred from one to five times during the project year. In approximately 30 percent of the schools in-service meetings related to career education were conducted five to ten times. At the junior high school level in-service meetings relating to career education were conducted monthly.

COMPONENT 11
Public Information and Communication

Performance Objective

Performance Objective #11

At the end of the project year, the number of adult Des Moines citizens to whom the career education program in the Des Moines Public Schools has been explained will be increased by 100 percent over the previous year, as measured by the recorded list of exposed citizens.

Process Objective

Process Objective #11.1

By February 1, 1974, the director of School-Community Relations with the cooperation of the administrative staff will develop a comprehensive public information program which utilizes all forms of media as evidenced by the developed program.

Results

An elementary and junior high school slide tape presentation was developed and used locally and in districts within Iowa. The staff also received requests for information from all the states and several overseas countries.

Billboard advertisements in addition to public service announcements were used to assist in making the public aware of career education. After the billboard campaign, 479 homes were called and 43 percent of the respondents indicated they were aware of career education.

COMPONENT 12
Post-Secondary Career Training

Performance Objective

Performance Objective #12

By the end of the second and third project year, 25 percent of the Des Moines high school graduates, upon enrolling in designated courses at the Des Moines Area Community College and taking the "challenge tests," will demonstrate knowledge of curricular content by testing out of a minimum of one-quarter of course work in one subject as measured by the results of "challenge tests."

Process Objective

Process Objective #12.1

By August 31, 1974, the Assistant Superintendent for Education in the Des Moines Public Schools will develop a cooperative plan with the administration of the Des Moines Area Community College officials so that challenge tests are developed in five program areas which will allow enrollers to "test out" of work included in high school programs, as evidenced by the developed tests.

Results

The challenge exams have been developed and the projected plans called for all students in Technical High School to take some of these exams late in the 1975-76 school year. Local records are available indicating the number of students "passing" the tests.